FCC Information and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

The vendor makes no representations or warranties with respect to the contents here and specially disclaims any implied warranties of merchantability or fitness for any purpose. Further the vendor reserves the right to revise this publication and to make changes to the contents here without obligation to notify any party beforehand.

The content of this user’s manual is subject to be changed without notice and we will not be responsible for any mistakes found in this user’s manual. All the brand and product names are trademarks of their respective companies.

Dichiarazione di conformità sintetica

Ai sensi dell’art. 2 comma 3 del D.M. 275 del 30/10/2002

Si dichiara che questo prodotto è conforme alle normative vigenti e soddisfa i requisiti essenziali richiesti dalle direttive

2004/108/CE, 2006/95/CE e 1999/05/CE

quando ad esso applicabili

Short Declaration of conformity

We declare this product is complying with the laws in force and meeting all the essential requirements as specified by the directives

2004/108/CE, 2006/95/CE and 1999/05/CE

whenever these laws may be applied

Table of Contents

CHAPTER 1: INTRODUCTION

1.1 Before You Start

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.
- The operating temperatures of the computer should be 0 to 45 degrees Celsius.
- To avoid injury, be careful of:
  Sharp pins on headers and connectors
  Rough edges and sharp corners on the chassis
  Damage to wires that could cause a short circuit

1.2 Package Checklist

- ☑ Serial ATA Cable x2
- ☑ Rear I/O Panel for ATX Case x1
- ☑ User's Manual x1
- ☑ Fully Setup Driver DVD x1

> **Note:** The package contents may be different due to the sales region or models in which it was sold. For more information about the standard package in your region, please contact your dealer or sales representative.

1.3 Motherboard Specifications

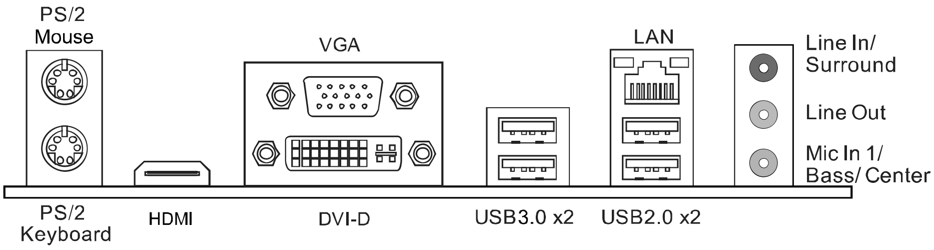
Specifications	
CPU Support	Socket FM2 for AMD A-series processor Maximum CPU TDP (Thermal Design Power): 100Watt * Please refer to www.biostar.com.tw for CPU support list.
Chipset	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)
Memory	Supports Dual Channel DDR3 800/ 1066/ 1333/ 1600/ 1866 2 x DDR3 DIMM Memory Slot, Max. Supports up to 32 GB Memory Each DIMM supports non-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3 module * Please refer to www.biostar.com.tw for Memory support list.
Storage	AMD A85/A75/A55 FCH Supports RAID 0,1,10, 5 & AHCI (AMD A85 FCH) Supports RAID 0,1,10, & AHCI (AMD A75/A55 FCH),
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability
Audio Codec	ALC892 5.1 Channels, High Definition Audio, Biostar Hi-Fi
USB	AMD A85/A75 FCH: 6x USB 2.0 port (2 on rear I/Os and 4 via internal headers) 4x USB 3.0 port (2 on rear I/Os and 2 via internal headers) AMD A55 FCH: 8x USB 2.0 port (4 on rear I/Os and 4 via internal headers)
Expansion Slots	3x PCI Slot 2x PCIe 2.0 x1 Slot 1x PCIe 2.0 x16 Slot

Rear I/Os	**Hi-Fi A85S2:**	**Hi-Fi A75S2:**	**Hi-Fi A55S2:**
	1x PS/2 Mouse	1x PS/2 Mouse	1x PS/2 Mouse
	1x PS/2 Keyboard	1x PS/2 Keyboard	1x PS/2 Keyboard
	1x HDMI Port	1x HDMI Port	1x VGA Port
	1x VGA Port	1x VGA Port	1x DVI Port
	1x DVI Port	1x DVI Port	1x LAN port
	1x LAN port	1x LAN port	4x USB 2.0 Port
	2x USB 2.0 Port	2x USB 2.0 Port	3x Audio Jack
	2x USB 3.0 Port	2x USB 3.0 Port	
	3x Audio Jack	3x Audio Jack	

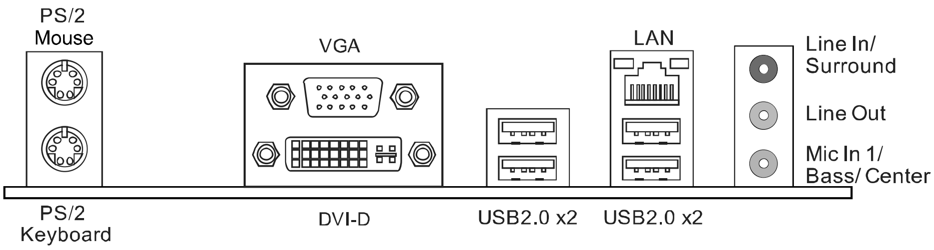
Specifications			
Internal I/Os	**Hi-Fi A85S2:** 8x SATA 6.0Gb/s Connector 2x USB 2.0 Header 1x USB 3.0 Header 1x 4-Pin Power Connector 1x 24-Pin Power Connector 1x CPU Fan Connector 2x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 1x Printer Port Header 1x Consumer IR Header 1x Serial Port Header 1x S/PDIF out Connector	**Hi-Fi A75S2:** 6x SATA 6.0Gb/s Connector 2x USB 2.0 Header 1x USB 3.0 Header 1x 4-Pin Power Connector 1x 24-Pin Power Connector 1x CPU Fan Connector 2x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 1x Printer Port Header 1x Consumer IR Header 1x Serial Port Header 1x S/PDIF out Connector	**Hi-Fi A55S2:** 6x SATA 3.0Gb/s Connector 2x USB 2.0 Header 1x 4-Pin Power Connector 1x 24-Pin Power Connector 1x CPU Fan Connector 2x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 1x Printer Port Header 1x Consumer IR Header 1x Serial Port Header 1x S/PDIF out Connector
Form Factor	ATX Form Factor, 295 mm x 200 mm		
OS Support	Windows XP / Vista / 7/ 8 Biostar reserves the right to add or remove support for any OS with or without notice.		

1.4 Rear Panel Connectors

Hi-Fi A85S2 / Hi-Fi A75S2



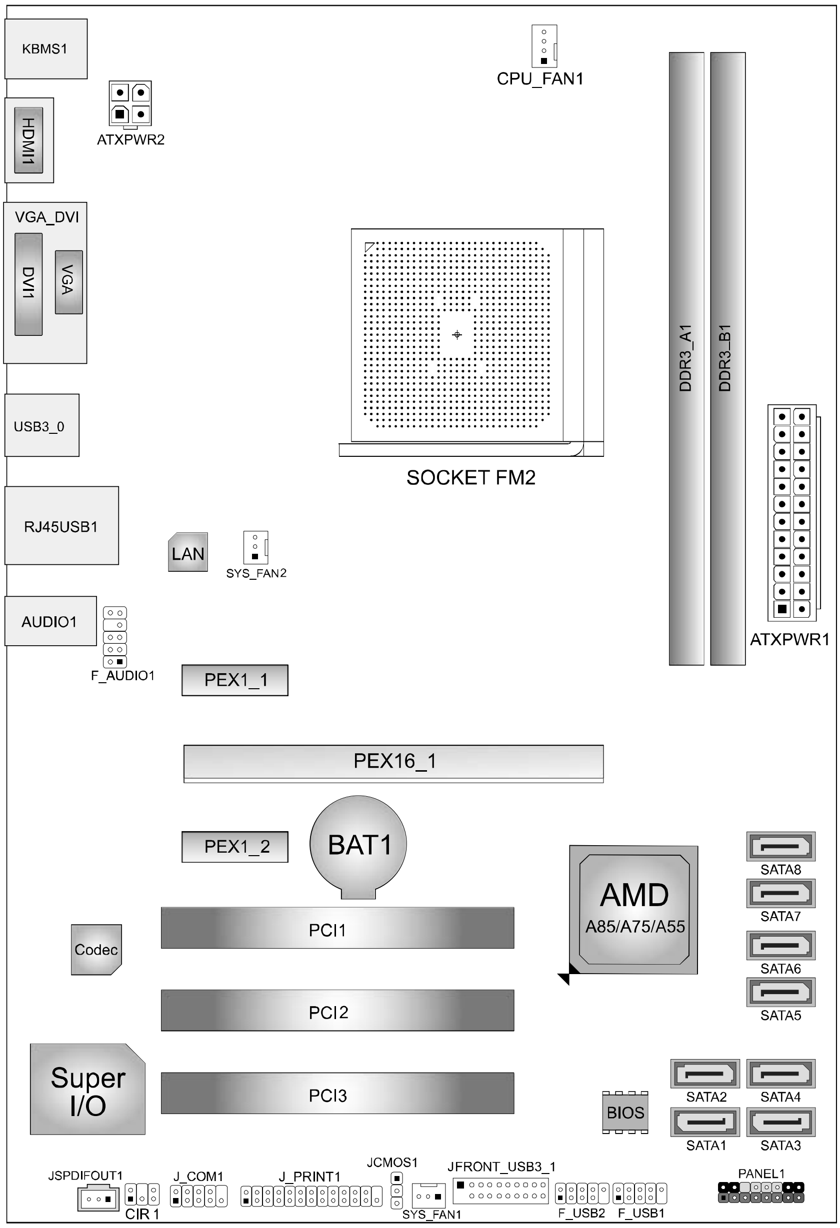
Hi-Fi A55S2



Note 1: HDMI / DVI-D / VGA Output require an AMD family processor with intedrated graphics.
Note 2: The mainboard supports three independent display outputs except Hi-Fi A55S2.
Note 3: Since the audio chip supports High Definition Audio Specification, the function of each audio jack can be defined by software. The input / output function of each audio jack listed above represents the default setting. However, when connecting external microphone to the audio port, please use the Line In (Blue) and Mic In (Pink) audio jack.
Note 4: Maximum resolution:

Outputs	Maximum resolution	Bit Depth
HDMI	1920 x 1080 @60Hz	24, 30, 36 bpp
	1920 x 1200 @60Hz	24 bpp
DVI-D	1920 x 1200 @60Hz	30 bpp
	2560 x 1600 @60Hz	24 bpp
VGA	1920 x 1600 @60Hz	--

1.5 Motherboard Layout

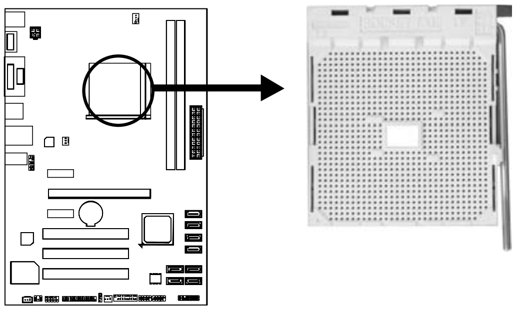


Note1: ■ represents the 1st pin.
Note2: SATA7 & SATA8 are only for Hi-Fi A85S2.

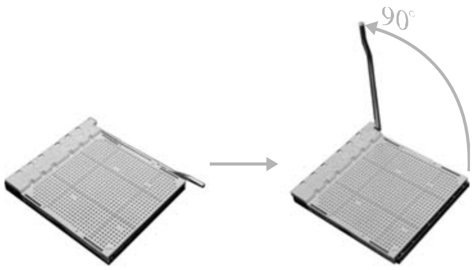
CHAPTER 2: HARDWARE INSTALLATION

2.1 Install Central Processing Unit (CPU)

Step 1: Locate the CPU socket on the motherboard



Step 2: Pull the socket locking out from the socket and then raise the lever up to a 90-degree angel.

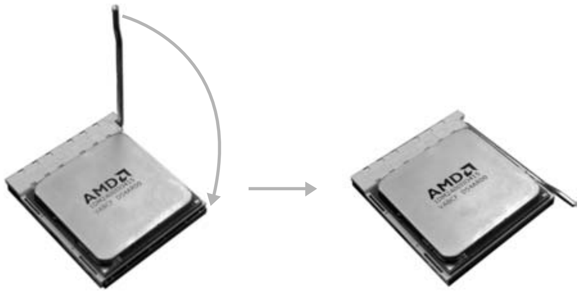


Step 3: Look for the white triangle on socket, and the gold triangle on CPU should point towards this white triangle. The CPU will fit only in the correct orientation.



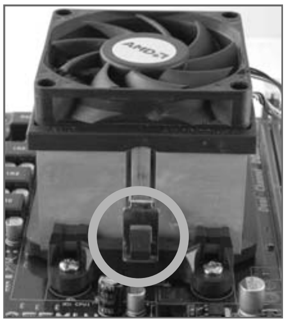
Note: The CPU fits only in one correct orientation. Do not force the CPU into the socket to prevent damaging the CPU.

Step 4: Hold the CPU down firmly, and then close the lever to locked the position

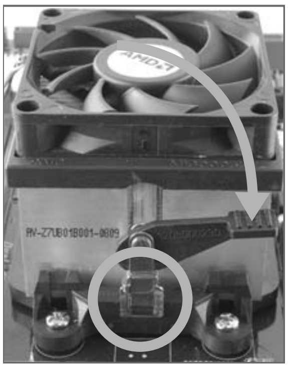


2.2 Install a Heatsink

Step 1: Place the heatsink and fan assembly onto the retention frame. Match the heatsink clip with the socket mounting-lug. Hook the spring clip to the mounting-lug.



Step 2: On the other side, push the retention clip straight down to lock into the plastic lug on the retention frame, and then press down the locker until it stops.

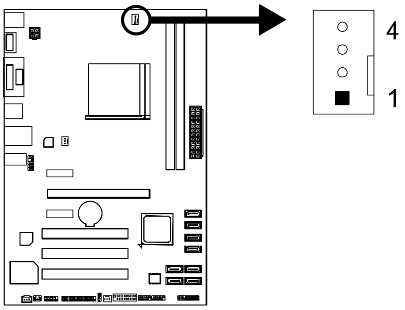


Note1: Do not forget to connect the CPU fan connector.
Note2: For proper installation, please kindly refer to the installation manual of your CPU heatsink.

2.3 Connect Cooling Fans

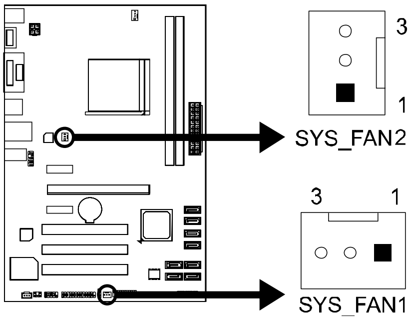
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

CPU_FAN1: CPU Fan Header



Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense
4	Smart Fan Control (By Fan)

SYS_FAN1/SYS_FAN2: System Fan Header

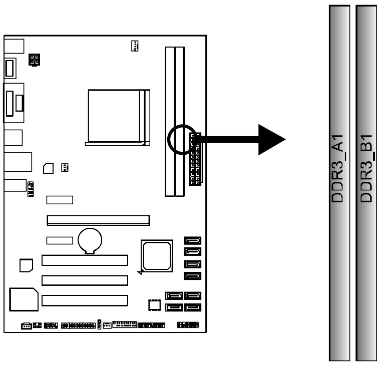


Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

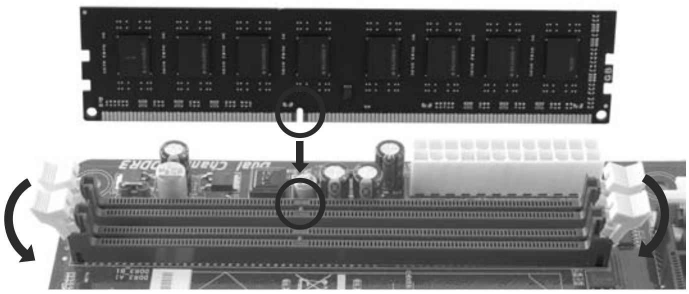
Note: CPU_FAN1, SYS_FAN1 support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.4 Install System Memory

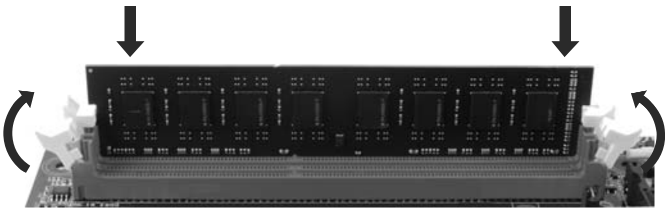
A. DDR3 Modules



Step 1: Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.



Step 2: Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



Note: If the DIMM does not go in smoothly, do not force it. Pull it all the way out and try again.

B. Memory Capacity

DIMM Socket Location	DDR3 Module	Total Memory Size
DDR3_A1	512MB/1GB/2GB/4GB/8GB/16GB	Max is 32GB.
DDR3_B1	512MB/1GB/2GB/4GB/8GB/16GB	

C. Dual Channel Memory Installation

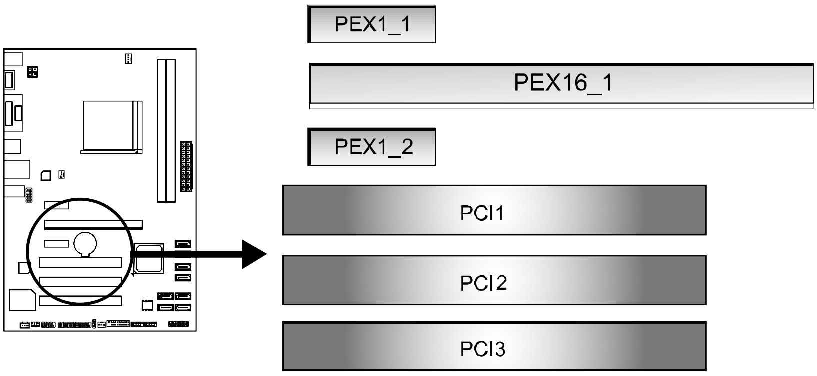
Please refer to the following requirements to activate Dual Channel function:
Install memory module of the same density in pairs, shown in the table.

Dual Channel Status	DDR3_A1	DDR3_B1
Disabled	O	X
Disabled	X	O
Enabled	O	O

(O means memory installed, X means memory not installed.)

Note: The DRAM bus width of the memory module must be the same (x8 or x16)

2.5 Expansion Slots



PEX16_1: PCI-Express Gen2 x16 Slot

- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 8GB/s simultaneously per direction, for an aggregate of 16GB/s totally.
- PCI-Express Gen2 supports a raw bit-rate of 5.0Gb/s on the data pins.

PEX1_1/PEX1_2: PCI-Express Gen2 x1 Slot

- PCI-Express 2.0 compliant.
- Data transfer bandwidth up to 500MB/s per direction; 1GB/s in total

PCI1/ PCI2/ PCI3: Peripheral Component Interconnect Slot

This motherboard is equipped with 1 standard PCI slot. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards.

Install an Expansion Card

You can install your expansion card by following steps:

1. Read the related expansion card's instruction document before install the expansion card into the computer.
2. Remove your computer's chassis cover, screws and slot bracket from the computer.
3. Place a card in the expansion slot and press down on the card until it is completely seated in the slot.
4. Secure the card’s metal bracket to the chassis back panel with a screw.
5. Replace your computer's chassis cover.
6. Power on the computer, if necessary, change BIOS settings for the expansion card.
7. Install related driver for the expansion card.

2.6 Jumper Setting

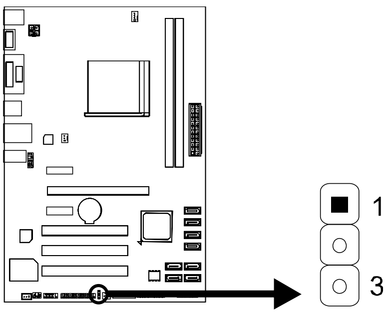
The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".

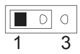


Pin opened Pin closed Pin1-2 closed

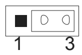
JCMOS1: Clear CMOS Header

Placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data. Please carefully follow the procedures to avoid damaging the motherboard.





Pin 1-2 Close:
Normal Operation (default).



Pin 2-3 Close:
Clear CMOS data.

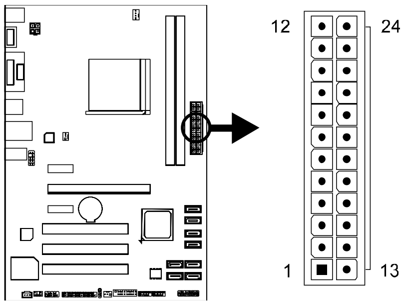
※ **Clear CMOS Procedures:**

1. Remove AC power line.
2. Set the jumper to "Pin 2-3 close".
3. Wait for five seconds.
4. Set the jumper to "Pin 1-2 close".
5. Power on the AC.
6. Load Optimal Defaults and save settings in CMOS.

2.7 Headers & Connectors

ATXPWR1: ATX Power Source Connector

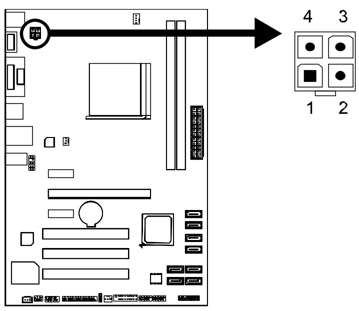
This connector allows user to connect 24-pin power connector on the ATX power supply.



Pin	Assignment	Pin	Assignment
13	+3.3V	1	+3.3V
14	-12V	2	+3.3V
15	Ground	3	Ground
16	PS_ON	4	+5V
17	Ground	5	Ground
18	Ground	6	+5V
19	Ground	7	Ground
20	NC	8	PW_OK
21	+5V	9	Standby Voltage+5V
22	+5V	10	+12V
23	+5V	11	+12V
24	Ground	12	+3.3V

ATXPWR2: ATX Power Source Connector

This connector will provide +12V to CPU power circuit.

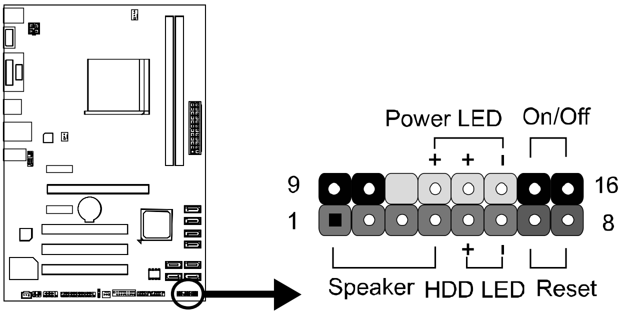


Pin	Assignment
1	+12V
2	+12V
3	Ground
4	Ground

Note1: Before you power on the system, please make sure that both ATXPWR1 and ATXPWR2 connectors have been plugged-in.
Note2: Insufficient power supplied to the system may result in instability or the peripherals not functioning properly. Use of a PSU with a higher power output is recommended when configuring a system with more power-consuming devices.

PANEL1: Front Panel Header

This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.

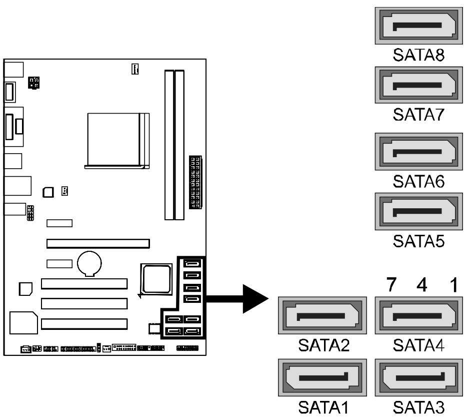


Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	9	N/A	N/A
2	N/A		10	N/A	
3	N/A		11	N/A	N/A
4	Speaker		12	Power LED (+)	Power LED
5	HDD LED (+)	Hard drive LED	13	Power LED (+)	
6	HDD LED (-)		14	Power LED (-)	
7	Ground	Reset button	15	Power button	Power-on button
8	Reset control		16	Ground	

SATA1~SATA8: Serial ATA Connectors

These connectors connect to SATA hard disk drives via SATA cables.

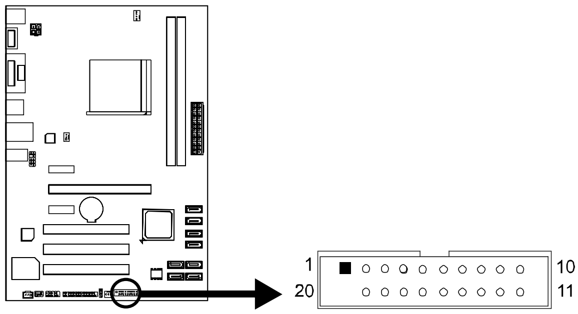
- Hi-Fi A85S2 & Hi-Fi A75S2 satisfy the SATA 3.0 spec and with transfer rate of 6.0Gb/s.
- Hi-Fi A55S2 satisfies the SATA 2.0 spec and with transfer rate of 3.0Gb/s.
- SATA7 & SATA8 are only for Hi-Fi A85S2.



Pin	Assignment
1	Ground
2	TX+
3	TX-
4	Ground
5	RX-
6	RX+
7	Ground

JFRONT_USB3_1: Header for USB 3.0 Ports at Front Panel

This header allows user to connect additional USB cable on the PC front panel, and also can be connected with a wide range of simultaneously accessible external Plug and Play peripherals.

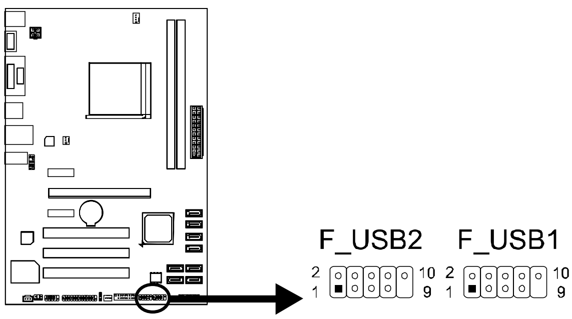


Pin	Assignment	Pin	Assignment
1	VBUS0	11	D2+
2	SSRX1-	12	D2-
3	SSRX1+	13	Ground
4	Ground	14	SSTX2+
5	SSTX1-	15	SSTX2-
6	SSTX1+	16	Ground
7	Ground	17	SSRX2+
8	D1-	18	SSRX2-
9	D1+	19	VBUS1
10	ID	20	Key

Note: The USB 3.0 header is only for Hi-Fi A85S2 and Hi-Fi A75S2

F_USB1/F_USB2: Headers for USB 2.0 Ports at Front Panel

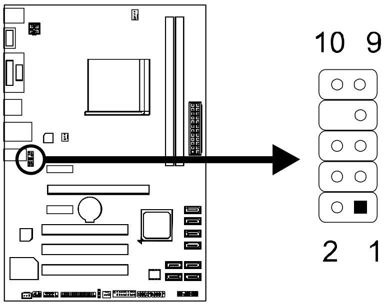
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with a wide range of simultaneously accessible external Plug and Play peripherals.



Pin	Assignment
1	+5V (fused)
2	+5V (fused)
3	USB-
4	USB-
5	USB+
6	USB+
7	Ground
8	Ground
9	NC
10	Key

F_AUDIO1: Front Panel Audio Header

This header allows user to connect the front audio output cable with the PC front panel. This header supports HD and AC’97 audio front panel connector.

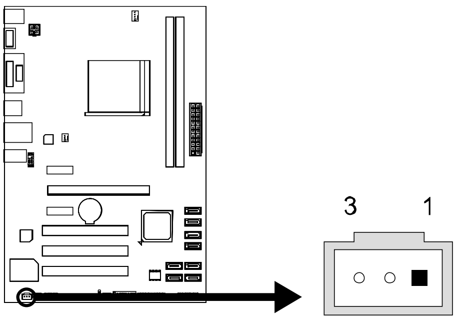


HD Audio		AC’97	
Pin	**Assignment**	**Pin**	**Assignment**
1	Mic Left in	1	Mic In
2	Ground	2	Ground
3	Mic Right in	3	Mic Power
4	GPIO	4	Audio Power
5	Right line in	5	RT Line Out
6	Jack Sense	6	RT Line Out
7	Front Sense	7	Reserved
8	Key	8	Key
9	Left line in	9	LFT Line Out
10	Jack Sense	10	LFT Line Out

Note1: It is recommended that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high definition audio capability.
Note2: Please try to disable the "Front Panel Jack Detection" if you want to use an AC'97 front audio output cable. The function can be found via O.S. Audio Utility.

JSPDIFOUT1: Digital Audio-out Connectors

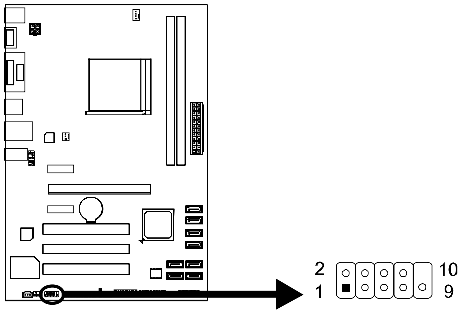
The JSPDIFOUT1 is for connecting the PCI bracket SPDIF output.



Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

J_COM1: Serial Port Connector

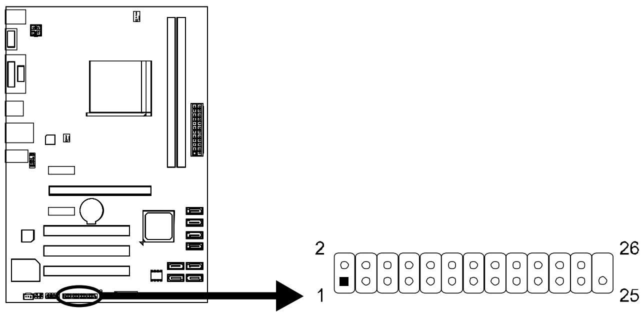
The motherboard has a Serial Port Connector for connecting RS-232 Port.



Pin	Assignment
1	Carrier detect
2	Received data
3	Transmitted data
4	Data terminal ready
5	Signal ground
6	Data set ready
7	Request to send
8	Clear to send
9	Ring indicator
10	NC

J_PRINT1: Printer Port Connector

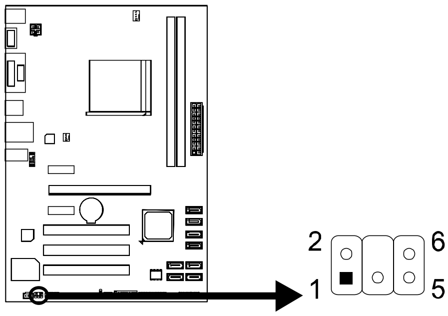
This header allows you to connector printer on the PC.



Pin	Assignment	Pin	Assignment
1	-Strobe	14	Ground
2	-ALF	15	Data 6
3	Data 0	16	Ground
4	-Error	17	Data 7
5	Data 1	18	Ground
6	-Init	19	-ACK
7	Data 2	20	Ground
8	-Scltin	21	Busy
9	Data 3	22	Ground
10	Ground	23	PE
11	Data 4	24	Ground
12	Ground	25	SCLT
13	Data 5	26	Key

CIR1: Consumer IR Connector

This header is for infrared remote control and communication.



Pin	Assignment
1	IrDA serial input
2	Ground
3	Ground
4	Key
5	IrDA serial output
6	IR Power

CHAPTER 3: UEFI BIOS & SOFTWARE

3.1 UEFI BIOS Setup

- For better system performance, the UEFI BIOS firmware is being continuously updated. The UEFI BIOS information described below in this manual is for your reference only and the actual UEFI BIOS information and settings on board may be different from this manual
- For further information of setting up the UEFI BIOS, please refer to the UEFI BIOS Manual in the Setup DVD.

3.2 BIOS Update

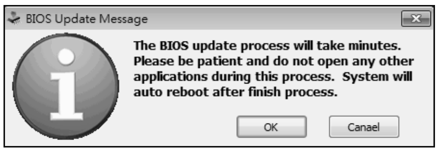
There are three ways to update the BIOS:
BIOS Update Utility, BIOS Online Update Utility and BIOS Flasher.

1. BIOS Update Utility

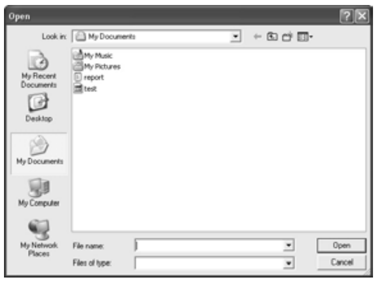
1. Installing BIOS Update Utility from the DVD Driver.
2. Download the proper BIOS from www.biostar.com.tw .



3. Open BIOS Update Utility and click the **Update BIOS** button on the main screen.

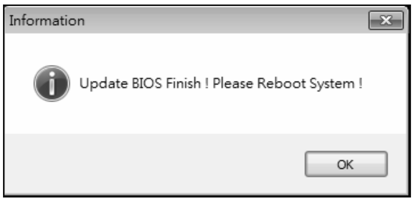


4. A warning message will show up to request your agreement to start the BIOS update. Click **OK** to start the update procedure.



5. Choose the location for your BIOS file in the system. Please select the proper BIOS file, and then click on **Open**. It will take several minutes, please be patient.

6. After the BIOS Update process is finished, click on **OK** to reboot the system.

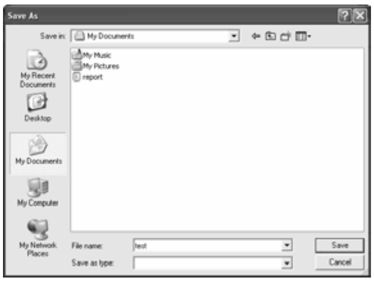


7. While the system boots up and the full screen logo shows up, please press the  <Delete> key to enter BIOS setup.

After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

Backup BIOS

Click the Backup BIOS button on the main screen for the backup of BIOS, and select a proper location for your backup BIOS file in the system, and click **Save**.



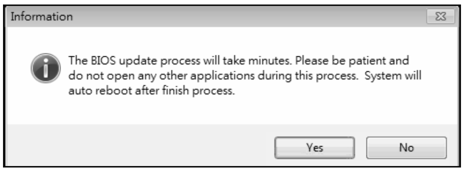
2. Online Update Utility

1. Installing BIOS Update Utility from the DVD Driver.
2. Please make sure the system is connected to the internet before using this function.

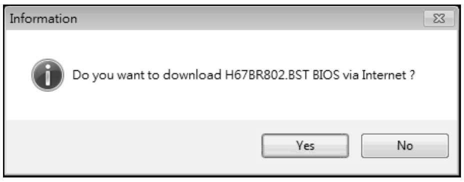


3. Open BIOS Update Utility and click the **Online Update** button on the main screen.

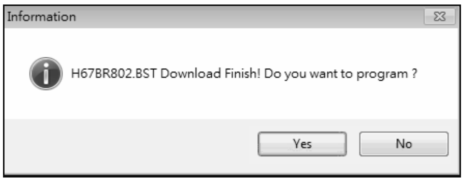
4. An open dialog will show up to request your agreement to start the BIOS update. Click **Yes** to start the online update procedure.



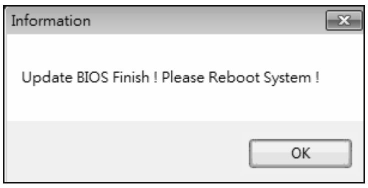
5. If there is a new BIOS version, the utility will ask you to download it. Click **Yes** to proceed.



6. After the download is completed, you will be asked to program (update) the BIOS or not. Click **Yes** to proceed.



7. After the updating process is finished, you will be asked you to reboot the system. Click **OK** to reboot.



8. While the system boots up and the full screen logo shows up, press  <Delete> key to enter BIOS setup.

After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

3. BIOSTAR BIOS Flasher

BIOSTAR BIOS Flasher is a BIOS flashing utility providing you an easy and simple way to update your BIOS via USB pen drive.

Note1: This utility only allows storage device with FAT32/16 format and single partition.

Note2: Shutting down or resetting the system while updating the BIOS will lead to system boot failure.

The BIOSTAR BIOS Flasher is built in the BIOS ROM. To enter the utility, **press <F12> during the Power-On Self Tests (POST)** procedure while booting up.

Updating BIOS with BIOSTAR BIOS Flasher

1. Go to the website to download the latest BIOS file for the motherboard.
2. Then, copy and save the BIOS file into a USB flash (pen) drive.
3. Insert the USB pen drive that contains the BIOS file to the USB port.
4. Power on or reset the computer and then press **<F12>** during the **POST** process.
5. After entering the POST screen, the BIOS-FLASHER utility pops out. Choose [fs0] to search for the BIOS file.



6. Select the proper BIOS file, and a message asking if you are sure to flash the BIOS file. Click Yes to start updating BIOS.



7. A dialog pops out after BIOS flash is completed, asking you to restart the system. Press the [Y] key to restart system.



8. While the system boots up and the full screen logo shows up, press <Delete> key to enter BIOS setup.



After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

3.3 Software

Installing Software

1. Insert the Setup DVD to the optical drive. The driver installation program would appear if the Autorun function has been enabled.
2. Select **Software Installation**, and then click on the respective software title.
3. Follow the on-screen instructions to complete the installation.

Note1: All the information and content about following software are subject to be changed without notice. For better performance, the software is being continuously updated.

Note2: The information and pictures described below are for your reference only. The actual information and settings on board may be slightly different from this manual.

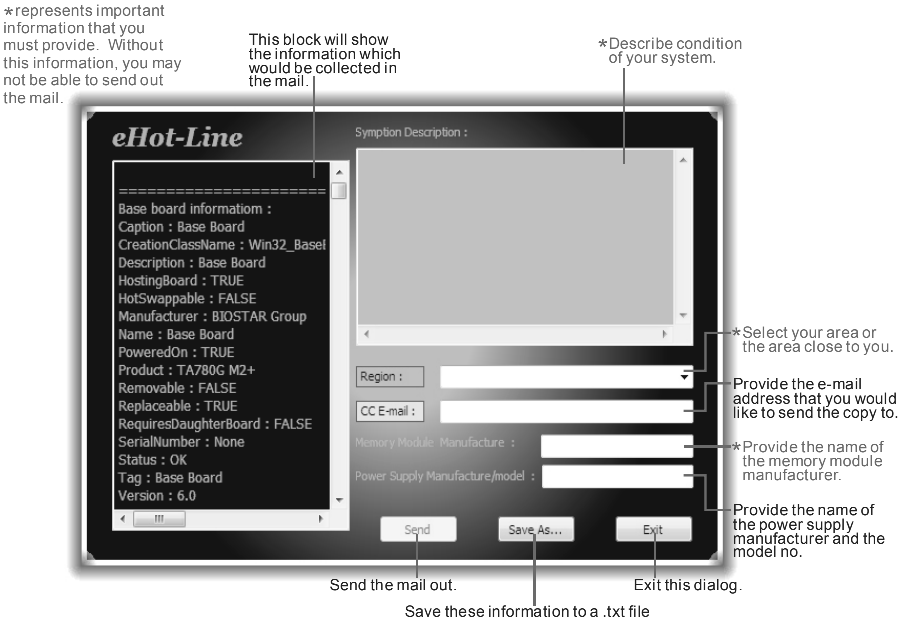
Launching Software

After the installation process is completed, you will see the software icon showing on the desktop. Double-click the icon to launch it.

eHot-Line (Optional)

eHot-Line is a convenient utility that helps you to contact with our Tech-Support system. This utility will collect the system information which is useful for analyzing the problem you may have encountered, and then send these information to our tech-support department to help you fix the problem.

Note: Before you use this utility, please set Outlook Express as your default e-mail client application program.

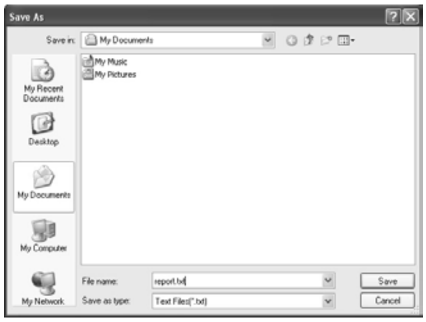


After filling up this information, click “**Send**” to send the mail out. A warning dialog would appear asking for your confirmation; click “**Send**” to confirm or “**Do Not Send**” to cancel.



If you want to save this information to a .txt file, click “**Save As…**” and then you will see a saving dialog appears asking you to enter file name.

Enter the file name and then click “**Save**”. Your system information will be saved to a .txt file.



Open the saved .txt file, you will see your system information including motherboard/BIOS/CPU/video/ device/OS information. This information is also concluded in the sent mail.

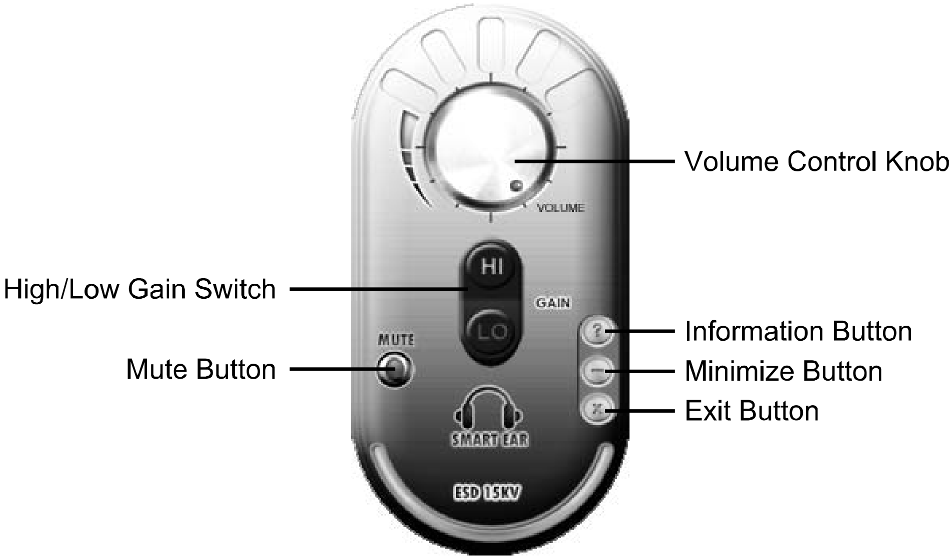


Note1: We will not share customer’s data with any other third parties, so please feel free to provide your system information while using eHot-Line service.

Note2: If you are not using Outlook Express as your default e-mail client application, you may need to save the system information to a .txt file and send the file to our tech support with other e-mail application. Go to the following web http://www.biostar.com.tw/app/en/about/contact.php for getting our contact information.

Smart EAR

Smart EAR is a windows-based audio utility which allows you to easily adjust system volume. With its user-friendly GUI, you can also adjust impedance setting (Low/High Gain) to optimize your headphone performance.



- **High/Low Gain Switch:** Keep the gain switch to low for low impedance headphone and set to high for high impedance headphone.
- **Mute Button:** To disable system sound
- **Volume Control Knob:** The volume can be finely adjusted by turning the knob either clockwise or anti-clockwise to increase or decrease system volume accordingly.
- **Information Button:** Get information of the application
- **Minimize Button:** Minimize the application window to the taskbar
- **Exit Button:** Exit the application

Note:

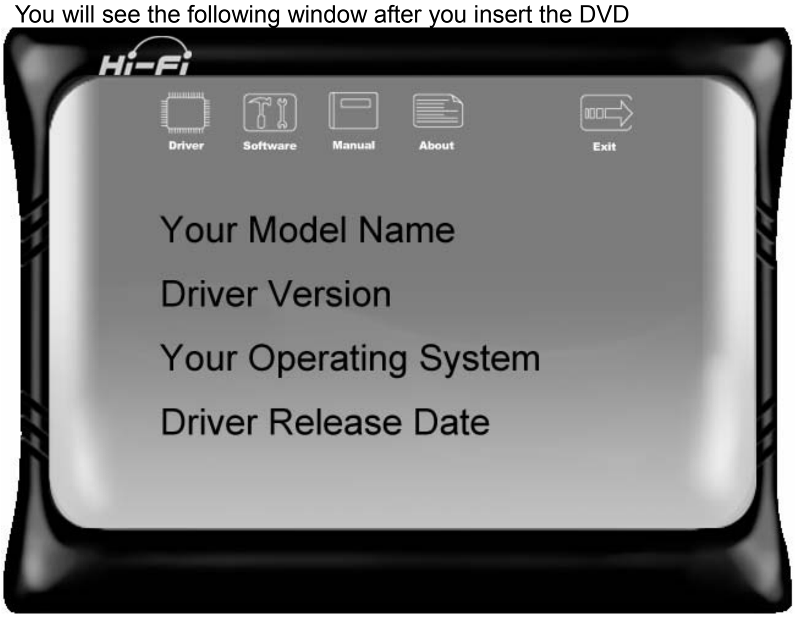
1. Smart EAR is only supported by Windows 7/8 and BIOSTAR Hi-Fi series motherboards.
2. High/Low Gain Switch is only for “Front Panel Audio Header”, please make sure you are connecting your headphone to the front panel I/O.

CHAPTER 4: USEFUL HELP

4.1 Driver Installation

After you installed your operating system, please insert the Fully Setup Driver DVD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the DVD



The setup guide will auto detect your motherboard and operating system.

> **Note:** If this window didn't show up after you insert the Driver DVD, please use file browser to locate and execute the file SETUP.EXE under your optical drive.

A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

C. Manual

Aside from the paperback manual, we also provide manual in the Driver DVD. Click on the Manual icon to browse for available manual.

> **Note:** You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from http://get.adobe.com/reader/

4.2 AMI BIOS Beep Code

Boot Block Beep Codes

Number of Beeps	Description
Continuing	Memory sizing error or Memory module not found

POST BIOS Beep Codes

Number of Beeps	Description
1	Success booting.
8	Display memory error (system video adapter)

4.3 Troubleshooting

Probable	Solution
1. There is no power in the system. Power LED does not shine; the fan of the power supply does not work 2. Indicator light on keyboard does not shine.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System is inoperative. Keyboard lights are on, power indicator lights are lit, and hard drives are running.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from a hard disk drive, but can be booted from optical drive.	1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. 2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from an optical drive. Hard disks can be read, applications can be used, but system fails to boot from a hard disk.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message shows "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
System cannot boot after user installs a second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
   (See “Close CMOS Header: JCMOS1” section)
2. Wait for seconds.
3. Power on the system again.

4.4 RAID Functions

Operating System

Supports Windows Vista , Windows 7 and Windows 8.

Raid Arrays

RAID supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

RAID 10: RAID 10 combines the techniques used in RAID 0 and RAID 1.

RAID 5: RAID 5 provides fault tolerance and better utilization of disk capacity.

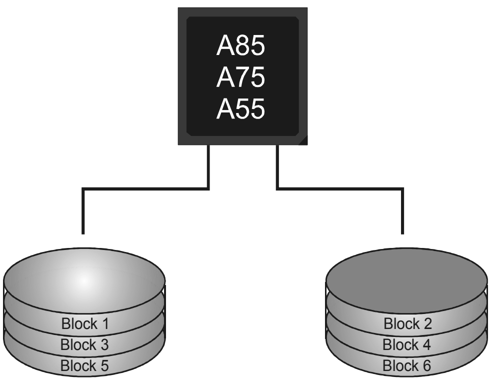
RAID Definitions

RAID 0:

The controller “stripes” data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- **Drives:** Minimum 2, and maximum is up to 6 or 8. Depending on the platform.
- **Uses:** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- **Benefits:** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- **Drawbacks:** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- **Fault Tolerance:** No.
- **Total Capacity:** (Minimal. HDD Capacity) x (Connected HDDs Amount)



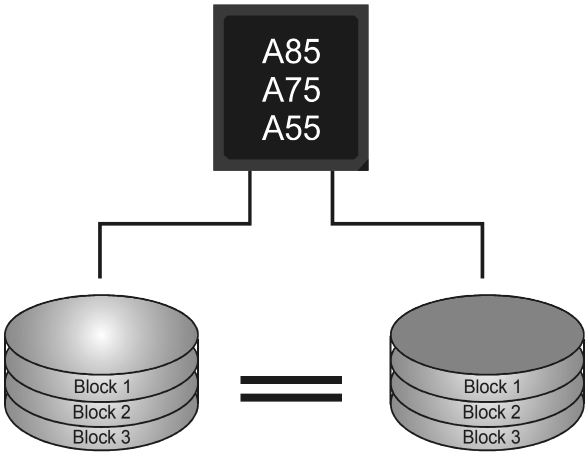
RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure.

RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

Features and Benefits

- **Drives:** Minimum 2, and maximum is 2.
- **Uses:** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- **Benefits:** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- **Drawbacks:** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- **Fault Tolerance:** Yes.

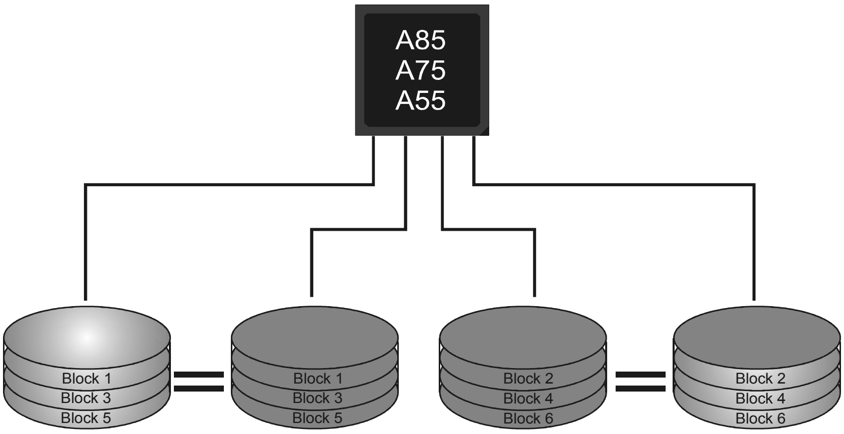


RAID 10:

RAID 1 drives can be stripped using RAID 0 techniques.Resulting in a RAID 10 solution for improved resiliency, performance and rebuild performance.

Features and Benefits

- **Drives:** Minimum 4, and maximum is 6 or 8, depending on the platform.
- **Benefits:** Optimizes for both fault tolerance and performance, allowing for automatic redundancy. May be simultaneously used with other RAID levels in an array, and allows for spare disks.
- **Drawbacks:** Requires twice the available disk space for data redundancy, the same as RAID level 1.
- **Fault Tolerance:** Yes.



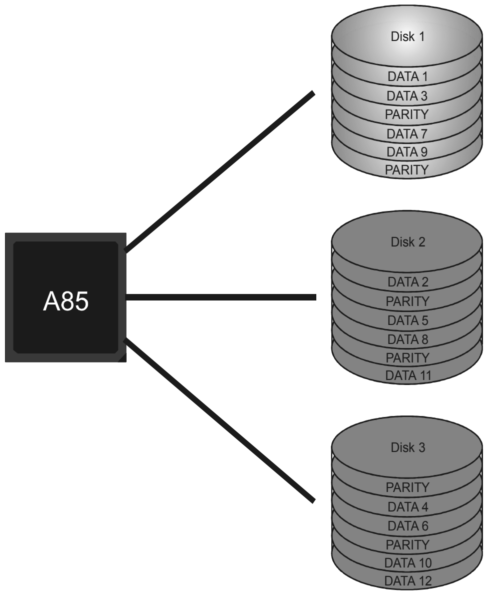
RAID 5:

RAID 5 stripes both data and parity information across three or more drives. It writes data and parity blocks across all the drives in the array. Fault tolerance is maintained by ensuring that the parity information for any given block of data is placed on a different drive from those used to store the data itself.

Note: The RAID 5 function is supported by A85 chipset only.

Features and Benefits

- **Drives:** Minimum 3.
- **Uses:** RAID 5 is recommended for transaction processing and general purpose service.
- **Benefits:** An ideal combination of good performance, good fault tolerance, and high capacity and storage efficiency.
- **Drawbacks:** Individual block data transfer rate same as a single disk. Write performance can be CPU intensive.
- **Fault Tolerance:** Yes.



4.5 AMD Dual Graphics Technology

AMD Dual Graphics Technology Introduction

When user adds a PCIE display adapter, it can be integrated with IGD to show better performance. To make the two video devices work simultaneously and normally, please refer to the following setting.

AMD Dual Graphics Requirement

- Operating System: Windows Vista / Windows 7 / Windows 8
- Supported Dual Graphics Combinations:

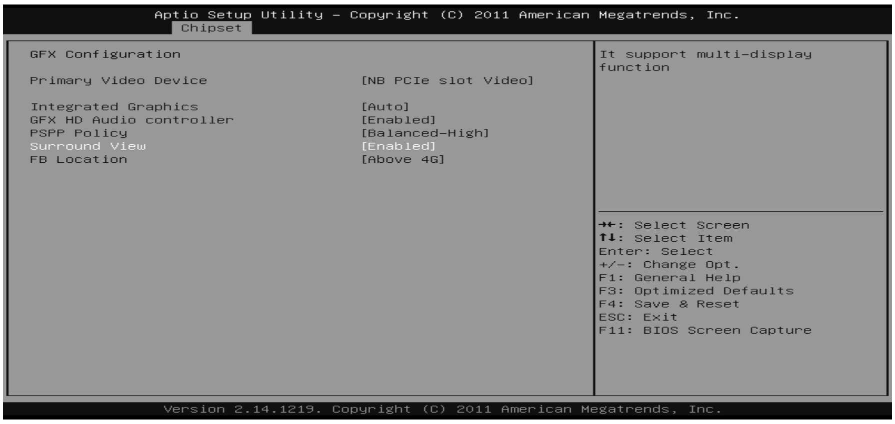
AMD Radeon™ Graphics Card	A10-Series HD 7660D	A8-Series HD7560D	A6-Series HD 7540D
HD 6670	●	●	
HD 6570	●	●	●
HD 6450			●
● Recommended graphics cards for AMD dual-graphics			

Note 1: A4-Series products do not support Dual Graphics.
Note 2: The information described above in this manual is for your reference only and the actual information and settings on board may be different from this manual. For further AMD Dual Graphics information, please visit the following website: http://www.amd.com

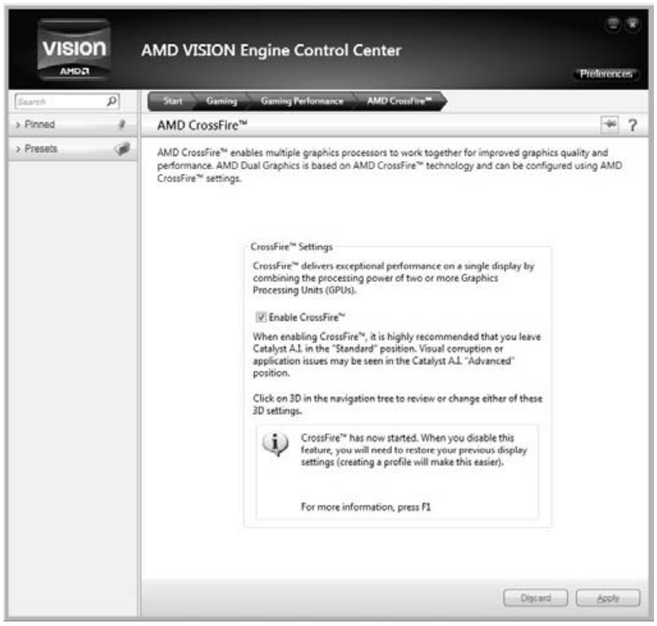
AMD Dual Graphics Setup

Step 1: Insert Dual Graphics-Ready graphics card into PEX16_1 slot.

Step 2: Set the BIOS setting as follows:
[Chipset]→[North Bridge]→[GFX Configuration]
→[Surround View]→[Enabled]



Step 3: Install Driver DVD Chipset Driver, and reboot the system. Activate AMD VISION Engine Control Center to make sure CrossFire has been enabled.



APPENDIX: Specifications In Other Languages

Arabic

<table>
<tr><th colspan="3">المواصفات</th></tr>
<tr><td>قاعدة وحدة المعالجة المركزية</td><td colspan="2">المأخذ FM 2 لمعالج ايه إم دى AMD تسلسل A
الحد الأقصى للطاقة الحرارية في تصميم المعالج (thermal design power – TDP): 100 واط.
* يرجى الرجوع إلى الموقعwww.biostar.com.tw لقائمة دعم المعالج CPU.</td></tr>
<tr><td>مجموعة الشرائح</td><td colspan="2">AMD A85 FCH (Hi-Fi A85S2)
AMD A75 FCH (Hi-Fi A75S2)
AMD A55 FCH (Hi-Fi A55S2)</td></tr>
<tr><td>الذاكرة</td><td colspan="2">تدعم قناة مزدوجة دي. دي. ار. DDR3 800 / 1066 / 1333 / 1600 / 1866
x2 دي. دي. ار. DDR3 فتحات الذاكرة المزدوجة DIMM، تتحمل كحد أقصى 32 جيجابايت ذاكرة
كل فتحة مزدوجة DIMM تتحمل دون ECC 512 ميجا بايت /16/8/4/2/1 جيجابايت دي. دي. ار DDR3
* يرجى الرجوع إلى الموقعwww.biostar.com.tw لقائمة دعم الذاكرة.</td></tr>
<tr><td>التخزين</td><td colspan="2">ايه إم دى AMD FCH A85/A75/A55
تتحمل رايد RAID 5 / 0 / 1 / 10 / AHCI(FCH A85)
تتحمل رايد RAID 0 / 1 / 10 / AHCI(FCH A75/A55)</td></tr>
<tr><td>شبكة محلية LAN</td><td colspan="2">ريبالتيك رت ل REALTEK RTL 8111F
10 / 100 / 1000 ميجابايت / الثانية ، تحديد تلقائي ، النصف / القدرة القصوى المزدوجة</td></tr>
<tr><td>الترميز الصوتي</td><td colspan="2">ALC892
5.1 قنوات عالية الدقة,Biostar Hi-Fi</td></tr>
<tr><td>ناقل متسلسل عام USB</td><td colspan="2">يه إم دى FCH AMD A85/A75
منافذ x 6 ناقل متسلسل عام USB 2.0 (2 في المداخل والمخارج الخلفية و 4 من خلال الموزع الداخلي)
منافذ x 4 ناقل متسلسل عام USB 3.0 (2 في المداخل والمخارج الخلفية و 2 من خلال الموزع الداخلي)
يه إم دى FCH AMD A55
منافذ x 8 ناقل متسلسل عام USB 2.0 (4 في المداخل والمخارج الخلفية و 4 من خلال الموزع الداخلي)</td></tr>
<tr><td>فتحات التوسع</td><td colspan="2">3 x فتحة منفذ الملحقات الإضافية PCI
2 x فتحة منفذ الملحقات الإضافية PCIe x2.0 1
1 x فتحة منفذ الملحقات الإضافية PCIe x2.0 16</td></tr>
<tr><td>المداخل والمخارج الخلفية</td><td>Hi-Fi A85S2/ Hi-Fi A75S2
1 x PS/2 الفارة
1 x PS/2 لوحة المفاتيح للكمبيوتر
فتحة توصيل عدد 1 x HDMI وسيط متعدد العالي الوضوح
فتحة توصيل عدد 1 x منظومة العرض المرئي VGA
فتحة توصيل عدد 1 x واجهة مرئية رقمية DVI
فتحة لتوصيل عدد 1 x الشبكة المحلية LAN
فتحة توصيل عدد 2 x ناقل متسلسل عام USB 2.0
فتحة توصيل عدد 2 x ناقل متسلسل عام USB 3.0
فتحة توصيل عدد 3 x جاك للصوت</td><td>Hi-Fi A55S2
1 x PS/2 الفارة
1 x PS/2 لوحة المفاتيح للكمبيوتر
فتحة توصيل عدد 1 x منظومة العرض المرئي VGA
فتحة توصيل عدد 1 x واجهة مرئية رقمية DVI
فتحة لتوصيل عدد 1 x الشبكة المحلية LAN
فتحة توصيل عدد 4 x ناقل متسلسل عام USB 2.0
فتحة توصيل عدد 3 x جاك للصوت</td></tr>
</table>

المواصفات

	Hi-Fi A85S2	Hi-Fi A75S2	Hi-Fi A55S2
المداخل والمخارج الداخلية	وصلة 8 SATA x 6 جيجابايت / الثانية موزع x2 ناقل متسلسل عام USB 2.0 موزع x1 ناقل متسلسل عام USB 3.0 موصلة للطاقة 1 x 4 دبابيس وصلة للطاقة x1 24 دبوس وصلة 1 x مروحة تبريد وحدة المعالجة المركزية وصلة x2 مراوح تبريد المنظومة موزع 1 x اللوحة الأمامية موزع x1 الصوت الأمامي موزع x1 سيموس مباشر موزع x1 فتحة للطباعة موزع 1 x مستهلك IR موزع 1 x فتحة تسلسلية وصلة 1 x خارجية S/PDIF سوني فيليبس والواجهة الرقمية	وصلة 6 SATA x 6 جيجابايت / الثانية موزع x2 ناقل متسلسل عام USB 2.0 موزع x1 ناقل متسلسل عام USB 3.0 موصلة للطاقة 1 x 4 دبابيس وصلة للطاقة x1 24 دبوس وصلة 1 x مروحة تبريد وحدة المعالجة المركزية وصلة x2 مراوح تبريد المنظومة موزع 1 x اللوحة الأمامية موزع x1 الصوت الأمامي موزع x1 سيموس مباشر موزع x1 فتحة للطباعة موزع 1 x مستهلك IR موزع 1 x فتحة تسلسلية وصلة 1 x خارجية S/PDIF سوني فيليبس والواجهة الرقمية	وصلة 6 SATA x 3 جيجابايت / الثانية موزع x2 ناقل متسلسل عام USB 2.0 موصلة للطاقة 1 x 4 دبابيس وصلة للطاقة x1 24 دبوس وصلة 1 x مروحة تبريد وحدة المعالجة المركزية وصلة x2 مراوح تبريد المنظومة موزع 1 x اللوحة الأمامية موزع x1 الصوت الأمامي موزع x1 سيموس مباشر موزع x1 فتحة للطباعة موزع 1 x مستهلك IR موزع 1 x فتحة تسلسلية وصلة 1 x خارجية S/PDIF سوني فيليبس والواجهة الرقمية
عامل الشكل	عامل شكل مدد التكنولوجيا المتقدمة ATX، 295 مم x 200 مم		
أنظمة التشغيل المدعومة	ويندوز إكس بي windows xp / ويندوز فيستا / ويندوز 7 / ويندوز 8 بيوستار BIOSTAR تحتفظ بحق إضافة أو إزالة الدعم لأي نظام تشغيل مع أو بدون أنظار.		

French

Spécifications	
Support Unité Centrale	Interface de connexion FM2 pour série A AMD processeur Enveloppe thermique Unité Centrale maximum : 100Watt * Veuillez vous reporter à www.biostar.com.tw pour la liste des supports modèles d'Unité Centrale.
Jeu de puces	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)
Mémoire	Supporte mémoire DDR3 double canal 800/ 1066/ 1333/ 1600/ 1866 Banc de mémoire 2 x DDR3 DIMM, Supporte max. jusqu'à une mémoire de 32 GB Chaque module DIMM supporte module DDR3 non-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB * Veuillez vous reporter à www.biostar.com.tw pour la liste des soutien de la mémoire.
Stockage	AMD A85/A75/A55 FCH Supporte système RAID 0,1,10, 5 & AHCI (A85 FCH) Supporte système RAID 0,1,10 & AHCI (A75/A55 FCH)
Réseau local	Realtek RTL 8111F 10/ 100/ 1000 Mb/s auto négociation, capacité bidirectionnelle à l'alternat / bidirectionnelle simultanée
Codec audio	ALC892 Canaux 5.1, écoute audio de haute définition, Biostar Hi-Fi
USB	AMD A85/A75 FCH Port 6x USB 2.0 (2 sur les I/O arrières et 4 en interne) Port 4x USB 3.0 (2 sur les I/O arrières et 2 en interne) AMD A55 FCH Port 8x USB 2.0 (4 sur les I/O arrières et 4 en interne)
Connecteur d'extension	3x Fente PCI 2x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente
I/O arrirèes	**Hi-Fi A85S2:** 1x PS/2 Clavier 1x PS/2 Souris 1x Port HDMI 1x Port VGA 1x Port DVI 1x port LAN 2x Port USB 2.0 2x Port USB 3.0 3x entrées audio **Hi-Fi A75S2:** 1x PS/2 Clavier 1x PS/2 Souris 1x Port HDMI 1x Port VGA 1x Port DVI 1x port LAN 2x Port USB 2.0 2x Port USB 3.0 3x entrées audio **Hi-Fi A55S2:** 1x PS/2 Clavier 1x PS/2 Souris 1x Port VGA 1x Port DVI 1x port LAN 4x Port USB 2.0 3x entrées audio

Spécifications	
I/O en interne	**Hi-Fi A85S2:** 8x Connecteur SATA 6.0Gb/s 2x embases USB 2.0 1x embases USB 3.0 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 2x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Embase port imprimante 1x Fiche Registre d'état Consommateur 1x Embase port série 1x Connecteur sortie S/PDIF **Hi-Fi A75S2:** 6x Connecteur SATA 6.0Gb/s 2x embases USB 2.0 1x embases USB 3.0 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 2x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Embase port imprimante 1x Fiche Registre d'état Consommateur 1x Embase port série 1x Connecteur sortie S/PDIF **Hi-Fi A55S2:** 6x Connecteur SATA 3.0Gb/s 2x embases USB 2.0 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 2x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Embase port imprimante 1x Fiche Registre d'état Consommateur 1x Embase port série 1x Connecteur sortie S/PDIF
Facteur d'encombrement	Facteur d'encombrement ATX, 295 mm x 200 mm
Support SE	Windows XP / Vista / 7/ 8 Biostar se réserve le droit d'ajouter ou d'enlever le support pour toute SE avec ou sans préavis.

German

Spezifikationen	
CPU-Unterstützung	Anschluss-FM2 für AMD A-Serie Prozessor Maximale CPU TDP (Thermal Design Power): 100 Watt * Bitte konsultieren Sie www.biostar.com.tw für CPU-Unterstützungsliste
Chipset	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)
Festplattenspeicher	Unterstützt zweikanaliges DDR3 800/ 1066/ 1333/ 1600/ 1866 2 x DDR3 DIMM-SpeicherSlot, Max. Uterstützung bis zu 32 GB-Speicher Jedes DIMM unterstützt nicht-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3-Module * Bitte konsultieren Sie www.biostar.com.tw für für Speicherunterstützung Liste.
Arbeitsspeicher	AMD A85/A75/A55 FCH Unterstützt RAID 0,1,10, 5 & AHCI (A85 FCH) Unterstützt RAID 0,1,10 & AHCI (A75/A55 FCH)
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb Auto-Negotiation, Halb- / Voll-Duplex-fähig
Audio-Codec	ALC892 5.1 Kanäle, HD-Audio, Biostar Hi-Fi
USB	AMD A85/A75 FCH: 6x USB 2.0-Port (2 hintere I/Os und 4 via interne Header) 4x USB 3.0-Port (2 hintere I/Os und 2 via interne Header) AMD A55 FCH: 8x USB 2.0-Port (4 hintere I/Os und 4 via interne Header)
Erweiterungsanschlüsse	3x PCI-Slot 2x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot
Hintere I/Os	**Hi-Fi A85S2:** 1x PS/2-Maus 1x PS/2-Keyboard 1x HDMI-Port 1x VGA-Port 1x DVI-Port 1x LAN-Port 2x USB 2.0-Port 2x USB 3.0-Port 3x Audio Jack **Hi-Fi A75S2:** 1x PS/2-Maus 1x PS/2-Keyboard 1x HDMI-Port 1x VGA-Port 1x DVI-Port 1x LAN-Port 2x USB 2.0-Port 2x USB 3.0-Port 3x Audio Jack **Hi-Fi A55S2:** 1x PS/2-Maus 1x PS/2-Keyboard 1x VGA-Port 1x DVI-Port 1x LAN-Port 4x USB 2.0-Port 3x Audio Jack

Spezifikationen			
Interne I/Os	**Hi-Fi A85S2:** 8x SATA 6.0Gb/s-Verbinung 2x USB 2.0-Header 1x USB 3.0-Header 1x 4-Pin-Stromverbindung 1x 24-Pin-Stromverbindung 1x CPU-Ventilatorverbindung 2x System-Ventilatorverbindung 1x Header für Frontpanel 1x Header für Frontaudio 1x Header für klares CMOS 1x Header für Druckerport 1x Consumer IR-Header 1x Serieller Port-Header 1x S/PDI-Auswurfsverbindung	**Hi-Fi A75S2:** 6x SATA 6.0Gb/s-Verbinung 2x USB 2.0-Header 1x USB 3.0-Header 1x 4-Pin-Stromverbindung 1x 24-Pin-Stromverbindung 1x CPU-Ventilatorverbindung 2x System-Ventilatorverbindung 1x Header für Frontpanel 1x Header für Frontaudio 1x Header für klares CMOS 1x Header für Druckerport 1x Consumer IR-Header 1x Serieller Port-Header 1x S/PDI-Auswurfsverbindung	**Hi-Fi A55S2:** 6x SATA 3.0Gb/s-Verbinung 2x USB 2.0-Header 1x 4-Pin-Stromverbindung 1x 24-Pin-Stromverbindung 1x CPU-Ventilatorverbindung 2x System-Ventilatorverbindung 1x Header für Frontpanel 1x Header für Frontaudio 1x Header für klares CMOS 1x Header für Druckerport 1x Consumer IR-Header 1x Serieller Port-Header 1x S/PDI-Auswurfsverbindung
Formfaktor	ATX Formfaktor, 295 mm x 200 mm		
OS-Unterstützung	Windows XP / Vista / 7/ 8 Biostar reserves the right to add or remove support for any OS with or without notice.		

Italian

<table>
<tr><th colspan="4">Specificazioni</th></tr>
<tr><td>Supporto processore</td><td colspan="3">Slot FM2 per processore AMD serie-A
Alimentazione di Proiezione Termico (TDP – Thermal Design Power): 100Watt
* Si prega di consultare www.biostar.com.tw per la lista di supporto del processore.</td></tr>
<tr><td>Tipo scheda</td><td colspan="3">AMD A85 FCH (Hi-Fi A85S2)
AMD A75 FCH (Hi-Fi A75S2)
AMD A55 FCH (Hi-Fi A55S2)</td></tr>
<tr><td>Memoria</td><td colspan="3">Supporta DDR3 800/ 1066/ 1333/ 1600/ 1866 Doppio Canale
2 x DDR3 DIMM Slot di Memoria Supporta fino a 32 GB Memoria
Ogni DIMM supporta non-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3 moduli
* Si prega di consultare www.biostar.com.tw per la lista di supporto del memoria.</td></tr>
<tr><td>Memorizzazione</td><td colspan="3">AMD A85/A75/A55 FCH
Supporta RAID 0,1,10, 5 & AHCI (A85 FCH)
Supporta RAID 0,1,10 & AHCI (A75/A55 FCH)</td></tr>
<tr><td>Catena</td><td colspan="3">Realtek RTL 8111F
10/ 100/ 1000 Mb auto negoziazione, capacita di duplex Meta / Completo</td></tr>
<tr><td>Codec Audio</td><td colspan="3">ALC892
Canali Audio di Alta Definizione 5.1, Biostar Hi-Fi</td></tr>
<tr><td>USB</td><td colspan="3">Piattaforma AMD A85/A75 FCH:
Slot 6x USB 2.0 (2 nei ingressi/ uscite posteriore e 4 da distributori interni)
Slot 4x USB 3.0 (2 nei ingressi/ uscite posteriore e 2 da distributori interni)
Piattaforma AMD A55 FCH:
Slot 8x USB 2.0 (4 nei ingressi/ uscite posteriore e 4 da distributori interni)</td></tr>
<tr><td>Slot di espansione</td><td colspan="3">Slot 3x PCI
Slot 2x PCIe 2.0 x1
Slot 1x PCIe 2.0 x16</td></tr>
<tr><td>Ingressi/ Uscite Posteriore</td><td>Hi-Fi A85S2:
Mouse 1x PS/2
Tastiera 1x PS/2
Slot 1x HDMI
Slot 1x VGA
Slot 1x DVI
Slot 1x LAN
Slot 2x USB 2.0
Slot 2x USB 3.0
Jack audio 3x</td><td>Hi-Fi A75S2:
Mouse 1x PS/2
Tastiera 1x PS/2
Slot 1x HDMI
Slot 1x VGA
Slot 1x DVI
Slot 1x LAN
Slot 2x USB 2.0
Slot 2x USB 3.0
Jack audio 3x</td><td>Hi-Fi A55S2:
Mouse 1x PS/2
Tastiera 1x PS/2
Slot 1x VGA
Slot 1x DVI
Slot 1x LAN
Slot 4x USB 2.0
Jack audio 3x</td></tr>
</table>

Specificazioni			
Ingressi/ Uscite Interni	**Hi-Fi A85S2:** Connettore 8x SATA 6.0Gb/s Distributore 2x USB 2.0 Distributore 1x USB 3.0 Connettore con 4 pin x1 Connettore con 24 pin x1 Connettore Ventilatore processore x1 Connettore Ventilatore Sistema x2 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Slot Stampante x1 Distributore Consumabile IR x1 Distributore Slot Serie x1 Connettore esterno S/PDIF x1	**Hi-Fi A75S2:** Connettore 6x SATA 6.0Gb/s Distributore 2x USB 2.0 Distributore 1x USB 3.0 Connettore con 4 pin x1 Connettore con 24 pin x1 Connettore Ventilatore processore x1 Connettore Ventilatore Sistema x2 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Slot Stampante x1 Distributore Consumabile IR x1 Distributore Slot Serie x1 Connettore esterno S/PDIF x1	**Hi-Fi A55S2:** Connettore 6x SATA 3.0Gb/s Distributore 2x USB 2.0 Connettore con 4 pin x1 Connettore con 24 pin x1 Connettore Ventilatore processore x1 Connettore Ventilatore Sistema x2 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Slot Stampante x1 Distributore Consumabile IR x1 Distributore Slot Serie x1 Connettore esterno S/PDIF x1
Fattore di Forma	Fattore di Forma ATX, 295 mm x 200 mm		
Supporto SO	Windows XP / Vista / 7/ 8 Biostar si riserva il diritto di aggiungere o ritirare il supporto per qualsiasi SO con o senza preavviso.		

Japanese

仕様			
CPU サポート	AMD A-シリーズ プロセッサの Socket FM2 最大 CPU TDP （Thermal Design Power 最大放熱量）:100 W *CPU サポート リストについては、www.biostar.com.twを参照してください。		
チップセット	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)		
メモリ	デュアルチャンネル DDR3 800/ 1066/ 1333/ 1600/ 1866 をサポート 2 x DDR3 DIMM メモリ スロット、 最大 32 GB メモリまでサポート 各 DIMM は、 非-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3 モジュールをサポートしています *サポートされているメモリのリストについては、www.biostar.com.twを参照してください。		
保存スペース	AMD A85/A75/A55 FCH RAID 0,1,10, 5 & AHCI のサポート (A85 FCH) RAID 0,1,10 & AHCI のサポート (A75/A55 FCH)		
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb/s オートネゴーシエーション、半/全 二重通信		
オーディオ コーデック	ALC892 5.1 チャンネル, ハイ デフィニション オーディオ, Biostar Hi-Fi		
USB	AMD A85/A75 FCH: 6x USB 2.0 ポート (後部 I/O に2つ 及び 内蔵ヘッダー経由に4つ) 4x USB 3.0 ポート (後部 I/O に2つ 及び 内蔵ヘッダー経由に2つ) AMD A55 FCH: 8x USB 2.0 ポート (後部 I/O に4つ 及び 内蔵ヘッダー経由に4つ)		
拡張スロット	3x PCI スロット 2x PCIe 2.0 x1 スロット 1x PCIe 2.0 x16 スロット		
後部 I/O	**Hi-Fi A85S2:** 1x PS/2 キーボード 1x PS/2 マウス 1x HDMI ポート 1x VGA ポート 1x DVI ポート 1x LAN ポート 2x USB 2.0 ポート 2x USB 3.0 ポート 3x オーディオ ジャック	**Hi-Fi A75S2:** 1x PS/2 キーボード 1x PS/2 マウス 1x HDMI ポート 1x VGA ポート 1x DVI ポート 1x LAN ポート 2x USB 2.0 ポート 2x USB 3.0 ポート 3x オーディオ ジャック	**Hi-Fi A55S2:** 1x PS/2 キーボード 1x PS/2 マウス 1x VGA ポート 1x DVI ポート 1x LAN ポート 4x USB 2.0 ポート 3x オーディオ ジャック

仕様			
内蔵 I/O	**Hi-Fi A85S2:** 8x SATA 6.0Gb/s コネクタ 2x USB 2.0 ヘッダー 1x USB 3.0 ヘッダー 1x 4-Pin パワー コネクタ 1x 24-Pin パワー コネクタ 1x CPU ファン コネクタ 2x システム ファン コネクタ 1x フロント パネル ヘッダー 1x フロント オーディオ ヘッダー 1x クリア CMOS ヘッダー 1x プリンター ポート ヘッダー 1x コンシューマー IR ヘッダー 1x シリアル ポート ヘッダー 1x S/PDIF アウト コネクタ	**Hi-Fi A75S2:** 6x SATA 6.0Gb/s コネクタ 2x USB 2.0 ヘッダー 1x USB 3.0 ヘッダー 1x 4-Pin パワー コネクタ 1x 24-Pin パワー コネクタ 1x CPU ファン コネクタ 2x システム ファン コネクタ 1x フロント パネル ヘッダー 1x フロント オーディオ ヘッダー 1x クリア CMOS ヘッダー 1x プリンター ポート ヘッダー 1x コンシューマー IR ヘッダー 1x シリアル ポート ヘッダー 1x S/PDIF アウト コネクタ	**Hi-Fi A55S2:** 6x SATA 3.0Gb/s コネクタ 2x USB 2.0 ヘッダー 1x 4-Pin パワー コネクタ 1x 24-Pin パワー コネクタ 1x CPU ファン コネクタ 2x システム ファン コネクタ 1x フロント パネル ヘッダー 1x フロント オーディオ ヘッダー 1x クリア CMOS ヘッダー 1x プリンター ポート ヘッダー 1x コンシューマー IR ヘッダー 1x シリアル ポート ヘッダー 1x S/PDIF アウト コネクタ
フォーム ファクタ	ATX フォーム ファクタ、295 mm x 200 mm		
サポート OS	Windows XP / Vista / 7/ 8 Biostar には、通知なしでサポート OS を変更する権限があります。		

Polish

Specyfikacje techniczne	
Obsługa procesora	Gniazdo procesora (Socket) FM2 dla procesorów AMD seria-A Moc Wydzielanego Ciepła (TDP - Thermal Design Power): 100Watt * Proszę sprawdzić listę obsługiwanych procesorów na stronie internetowej www.biostar.com.tw
Rodzaj płyty	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)
Pamięć	Obsługa pamięci DDR3 800/ 1066/ 1333/ 1600/ 1866 Dwukanałowa 2 x DDR3 DIMM Pamięć Gniazda procesora (Slot), Maksymalna wielkość pamięci 32 GB Każdy DIMM obsługuje jeden moduł non-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3 * Proszę sprawdzić listę obsługiwanych pamięć na stronie internetowej www.biostar.com.tw
Przechowywanie	AMD A85/A75 FCH Obsługa RAID 0,1,10, 5 & AHCI (A85 FCH) Obsługa RAID 0,1,10 & AHCI (A75/A55 FCH)
LAN	Układ RTL 8111F 10/ 100/ 1000 Mb auto negocjacja, pojemność dupleks Połowe / Pełny
Codec Audio	ALC892 Kanały Audio wysokiej Definicji 5.1, Biostar Hi-Fi
USB	Płyta AMD A85/A75 FCH: 6 x złącza USB 2.0 (2 przez tylne porty wejścia/ wyjścia oraz 4 przez wewnętrzne porty) 4 x złącza USB 3.0 (2 przez tylne porty wejścia/ wyjścia oraz 2 przez wewnętrzne porty) Płyta AMD A55 FCH: 8 x złącza USB 2.0 (4 przez tylne porty wejścia/ wyjścia oraz 4 przez wewnętrzne porty)
Złącza rozszerzeń	złącza 3x PCI (Slot) złącza 2x PCIe 2.0 x1 (Slot) złącza 1x PCIe 2.0 x16 (Slot)
Tylne porty wejścia/ wyjścia	**Hi-Fi A85S2:** Myszka 1x PS/2 Klawiatura 1x PS/2 Port 1x HDMI (gniazdo) Port 1x VGA Port 1x DVI Port 1x LAN Porty 2x USB 2.0 Porty 2x USB 3.0 Porty audio 3x **Hi-Fi A75S2:** Myszka 1x PS/2 Klawiatura 1x PS/2 Port 1x HDMI (gniazdo) Port 1x VGA Port 1x DVI Port 1x LAN Porty 2x USB 2.0 Porty 2x USB 3.0 Porty audio 3x **Hi-Fi A55S2:** Myszka 1x PS/2 Klawiatura 1x PS/2 Port 1x VGA Port 1x DVI Port 1x LAN Porty 4x USB 2.0 Porty audio 3x

Specyfikacje techniczne			
Wewnętrzne porty wejścia/ wyjścia	**Hi-Fi A85S2:** Złącza 8x SATA 6.0Gb/s Złącza 2x USB 2.0 Złącza 1x USB 3.0 Złącza 4 pionowe x 1 Złącza 24 pionowe x 1 Złącze wentylatora CPU x 1 Złącze wentylatora obudowy x 2 Złącze przedniego panelu x1 Złącze audio przedniego panelu x1 Złącze bezpośrednie CMOS x1 Złącze port drukarki x1 Złącze konsument IR x1 Port szeregowy x1 Port zewnętrzny S/PDIF x1	**Hi-Fi A75S2:** Złącza 6x SATA 6.0Gb/s Złącza 2x USB 2.0 Złącza 1x USB 3.0 Złącza 4 pionowe x 1 Złącza 24 pionowe x 1 Złącze wentylatora CPU x 1 Złącze wentylatora obudowy x 2 Złącze przedniego panelu x1 Złącze audio przedniego panelu x1 Złącze bezpośrednie CMOS x1 Złącze port drukarki x1 Złącze konsument IR x1 Port szeregowy x1 Port zewnętrzny S/PDIF x1	**Hi-Fi A55S2:** Złącza 6x SATA3.0Gb/s Złącza 2x USB 2.0 Złącza 4 pionowe x 1 Złącza 24 pionowe x 1 Złącze wentylatora CPU x 1 Złącze wentylatora obudowy x 2 Złącze przedniego panelu x1 Złącze audio przedniego panelu x1 Złącze bezpośrednie CMOS x1 Złącze port drukarki x1 Złącze konsument IR x1 Port szeregowy x1 Port zewnętrzny S/PDIF x1
Obudowa	Obudowa ATX, 295 mm x 200 mm		
Obsługa OS	Windows XP / Vista / 7/ 8 Biostar zastrzega sobie prawo do dodania lub wycofania obsługi dla OS, z wypowiedzeniem lub bez wypowiedzenia.		

Portuguese

Especificações	
Suporte Processador	Porta FM2 para processador AMD série-A Alimentação de Design Térmico (TDP – Thermal Design Power): 100Watt * Por favor consulte www.biostar.com.tw para obter uma lista de suporte do processador.
Tipo Placa Mãe	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)
Memória	Suporta DDR3 800/ 1066/ 1333/ 1600/ 1866 Canal Duplo 2 x DDR3 DIMM Slot de memória Suporta até 32 GB Memória Cada DIMM suporta non-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3 módulo * Por favor consulte www.biostar.com.tw para obter uma lista de suporte do memória.
Armazenamento	AMD A85/A75/A55 FCH Suporta RAID 0,1,10, 5 & AHCI (A85 FCH) Suporta RAID 0,1,10 & AHCI (A75/A55 FCH)
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb auto negociação, capacidade duplex Metade / Cheio
Codec de Audio	ALC892 Canais de Áudio de Alta Definição 5.1, Biostar Hi-Fi
USB	Plataforma AMD A85/A75 FCH: Porta 6x USB 2.0 (2 nas entradas/saídas traseiras e 4 pelos Dispositivos internos) Porta 4x USB 3.0 (2 nas entradas/saídas traseiras e 2 pelos Dispositivos internos) Plataforma AMD A55 FCH: Porta 8x USB 2.0 (4 nas entradas/saídas traseiras e 4 pelos Dispositivos internos)
Slots de expansão	Porta 3x PCI Porta 2x PCIe 2.0 x1 Porta 1x PCIe 2.0 x16
Entradas/Saídas no painel traseiro	**Hi-Fi A85S2:** Mouse 1x PS/2 Teclado 1x PS/2 Porta 1x HDMI Porta 1x VGA Porta 1x DVI Porta 1x LAN Porta 2x USB 2.0 Porta 2x USB 3.0 Soquete audio 3x **Hi-Fi A75S2:** Mouse 1x PS/2 Teclado 1x PS/2 Porta 1x HDMI Porta 1x VGA Porta 1x DVI Porta 1x LAN Porta 2x USB 2.0 Porta 2x USB 3.0 Soquete audio 3x **Hi-Fi A55S2:** Mouse 1x PS/2 Teclado 1x PS/2 Porta 1x VGA Porta 1x DVI Porta 1x LAN Porta 4x USB 2.0 Soquete audio 3x

Especificações			
Conectores na placa	**Hi-Fi A85S2:** Conector 8x SATA 6.0Gb/s Dispositivo 2x USB 2.0 Dispositivo 1x USB 3.0 Conector de 4 pinos x1 Conector de 24 pinos x1 Conector de Ventoinha processador x1 Conector de Ventoinha Sistema x2 Dispositivo Painel Frontal x1 Dispositivo de Audio Frontal x1 Dispositivo CMOS Direct x1 Dispositivo Porta Impressora x1 Dispositivo Porta Impressora x1 Dispositivo Porta Série x1 Conector Externo S/PDIF x1	**Hi-Fi A75S2:** Conector 6x SATA 6.0Gb/s Dispositivo 2x USB 2.0 Dispositivo 1x USB 3.0 Conector de 4 pinos x1 Conector de 24 pinos x1 Conector de Ventoinha processador x1 Conector de Ventoinha Sistema x2 Dispositivo Painel Frontal x1 Dispositivo de Audio Frontal x1 Dispositivo CMOS Direct x1 Dispositivo Porta Impressora x1 Dispositivo Porta Impressora x1 Dispositivo Porta Série x1 Conector Externo S/PDIF x1	**Hi-Fi A55S2:** Conector 6x SATA 3.0Gb/s Dispositivo 2x USB 2.0 Conector de 4 pinos x1 Conector de 24 pinos x1 Conector de Ventoinha processador x1 Conector de Ventoinha Sistema x2 Dispositivo Painel Frontal x1 Dispositivo de Audio Frontal x1 Dispositivo CMOS Direct x1 Dispositivo Porta Impressora x1 Dispositivo Porta Impressora x1 Dispositivo Porta Série x1 Conector Externo S/PDIF x1
Fator de Fôrma	Fator de Fôrma ATX, 295 mm x 200 mm		
Suporte OS	Windows XP / Vista / 7/ 8 Biostar reserva seu direito de adicionar ou retirar o suporte para qualquer OS com ou sem notificação.		

Russian

Спецификации			
Поддержка центрального процессора	Сокет FM2 для процессоров AMD серии A Максимальный термопакет центрального процессора (TDP): 100 ватт * Перечень поддержки центрального процессора смотрите на www.biostar.com.tw.		
Набор микросхем	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)		
Память	Поддерживает двухканальный DDR3 800/ 1066/ 1333/ 1600/ 1866 2 гнезда платы памяти DDR3 DIMM, максимальная память до 32 Гб Каждый модуль DIMM поддерживает модуль не-ECC 512 Мб/ 1/ 2/ 4/ 8/ 16 Гб DDR3 * Перечень поддержки памяти смотрите на www.biostar.com.tw.		
Накопитель	AMD A85/A75/A55 FCH Поддерживает RAID 0,1,10, 5 & AHCI (A85 FCH) Поддерживает RAID 0,1,10 & AHCI (A75/A55 FCH)		
Локальная сеть	Realtek RTL 8111F Автосогласование 10/ 100/ 1000 Мб/с, работает в полно/полудуплексном режиме		
Аудиокодек	ALC892 Каналы 5.1, высококачественное аудио, Biostar Hi-Fi		
USB	AMD A85/A75 FCH: 6 портов USB 2.0 (2 сзади ввода-вывода и 4 через внутренние контакты) 4 портов USB 3.0 (2 сзади ввода-вывода и 2 через внутренние контакты) AMD A55 FCH: 8 портов USB 2.0 (4 сзади ввода-вывода и 4 через внутренние контакты)		
Гнезда расшир.	3x гнезда PCI 2x PCIe 2.0 x1 гнездо 1x PCIe 2.0 x16 гнездо		
Задняя плата ввода-вывода	**Hi-Fi A85S2:** 1 мышь PS/2 1 клавиатура PS/2 1 порт HDMI 1 порт VGA 1 порт DVI 1 порт локальной сети 2 порта USB 2.0 2 порта USB 3.0 3 гнезд для подключения наушников	**Hi-Fi A75S2:** 1 мышь PS/2 1 клавиатура PS/2 1 порт HDMI 1 порт VGA 1 порт DVI 1 порт локальной сети 2 порта USB 2.0 2 порта USB 3.0 3 гнезд для подключения наушников	**Hi-Fi A55S2:** 1 мышь PS/2 1 клавиатура PS/2 1 порт VGA 1 порт DVI 1 порт локальной сети 4 порта USB 2.0 3 гнезд для подключения наушников

Спецификации			
Внутр. Плата ввода-вывода	**Hi-Fi A85S2:** Соединитель 8x SATA 6 Гб/с 2 контакта USB 2.0 1 контакта USB 3.0 1 4-выводный разъем питания 1 24-выводный разъем питания 1 разъем вентилятора ЦП 2 разъема вентилятора системы 1 контакт передней панели 1 контакт передней аудиопанели 1 контакт микросхемы Clear CMOS 1 контакт порта принтера 1 инфракрасный пользовательский контакт 1 контакт последовательного порта 1 соединитель S/PDIF-Out	**Hi-Fi A75S2:** Соединитель 6x SATA 6 Гб/с 2 контакта USB 2.0 1 контакта USB 3.0 1 4-выводный разъем питания 1 24-выводный разъем питания 1 разъем вентилятора ЦП 2 разъема вентилятора системы 1 контакт передней панели 1 контакт передней аудиопанели 1 контакт микросхемы Clear CMOS 1 контакт порта принтера 1 инфракрасный пользовательский контакт 1 контакт последовательного порта 1 соединитель S/PDIF-Out	**Hi-Fi A55S2:** Соединитель 6x SATA 3 Гб/с 2 контакта USB 2.0 1 4-выводный разъем питания 1 24-выводный разъем питания 1 разъем вентилятора ЦП 2 разъема вентилятора системы 1 контакт передней панели 1 контакт передней аудиопанели 1 контакт микросхемы Clear CMOS 1 контакт порта принтера 1 инфракрасный пользовательский контакт 1 контакт последовательного порта 1 соединитель S/PDIF-Out
Конструктив	Форм-фактор ATX, 295 мм x 200 мм		
Поддержка ОС	Windows XP / Vista / 7/ 8 Biostar оставляет за собой право добавлять или удалять поддержку любой ОС, с уведомлением или без.		

Spanish

Especificaciones	
Compatibilidad con el procesador	Ranura FM2 para procesador AMD serie - A Alimentación de Proyección Térmica (TDP – Thermal Design Power): 100Watt *Por favor consultar con www.biostar.com.tw para la lista de compatibilidad con el procesador.
Tipo de Placa	AMD A85 FCH (Hi-Fi A85S2) AMD A75 FCH (Hi-Fi A75S2) AMD A55 FCH (Hi-Fi A55S2)
Memoria	Soporta DDR3 800/ 1066/ 1333/ 1600/ 1866 Doble Canal 2x DDR3 DIMM Ranura de memoria Soporta hasta 32 GB Memoria Cada DIMM soporta un modulo non-ECC 512MB/ 1/ 2/ 4/ 8/ 16 GB DDR3 *Por favor consultar con www.biostar.com.tw para la lista de compatibilidad con el memoria.
Almacenamiento de información	AMD A85/A75/A55 FCH Soporta RAID 0,1,10, 5 & AHCI (A85 FCH) Soporta RAID 0,1,10 & AHCI (A75/A55 FCH)
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb/s auto negociación, capacidad dúplex Mitad/Completo
Códec Audio	ALC892 Canales Audio de Alta Definición 5.1, Biostar Hi-Fi
USB	Plataforma AMD A85/A75 FCH: Ranura 6x USB 2.0 (2 en las entradas/salidas posteriores y 4 por los distribuidores internos) Ranura 4x USB 3.0 (2 en las entradas/salidas posteriores y 2 por los distribuidores internos) Plataforma AMD A55 FCH: Ranura 8x USB 2.0 (4 en las entradas/salidas posteriores y 4 por los distribuidores internos)
Ranuras de Extinción	Ranura 3x PCI Ranura 2x PCIe 2.0 x1 Ranura 1x PCIe 2.0 x16
Panel trasero de E/S	**Hi-Fi A85S2:** Ratón 1x PS/2 Teclado 1x PS/2 Ranura 1x HDMI Ranura 1x VGA Ranura 1x DVI Ranura 1x LAN Ranura 2x USB 2.0 Ranura 2x USB 3.0 Socket audio 3x **Hi-Fi A75S2:** Ratón 1x PS/2 Teclado 1x PS/2 Ranura 1x HDMI Ranura 1x VGA Ranura 1x DVI Ranura 1x LAN Ranura 2x USB 2.0 Ranura 2x USB 3.0 Socket audio 3x **Hi-Fi A55S2:** Ratón 1x PS/2 Teclado 1x PS/2 Ranura 1x VGA Ranura 1x DVI Ranura 1x LAN Ranura 4x USB 2.0 Socket audio 3x

Especificaciones			
Conectores en placa	**Hi-Fi A85S2:** Conector 8x SATA 6Gb's Distribuidor 2x USB 2.0 Distribuidor 1x USB 3.0 Conector con 4 patillas x1 Conector con 24 patillas x1 Conector Ventilador procesador x1 Conector Ventilador Sistema x2 Distribuidor Panel Frontal x1 Distribuidor Audio Frontal x1 Distribuidor CMOS Directo x1 Distribuidor Ranura Impresora x1 Distribuidor Consumible IR x1 Distribuidor Ranura Serie x1 Conector Externo S/PDIF x1	**Hi-Fi A75S2:** Conector 6x SATA 6Gb's Distribuidor 2x USB 2.0 Distribuidor 1x USB 3.0 Conector con 4 patillas x1 Conector con 24 patillas x1 Conector Ventilador procesador x1 Conector Ventilador Sistema x2 Distribuidor Panel Frontal x1 Distribuidor Audio Frontal x1 Distribuidor CMOS Directo x1 Distribuidor Ranura Impresora x1 Distribuidor Consumible IR x1 Distribuidor Ranura Serie x1 Conector Externo S/PDIF x1	**Hi-Fi A55S2:** Conector 6x SATA 3Gb's Distribuidor 2x USB 2.0 Conector con 4 patillas x1 Conector con 24 patillas x1 Conector Ventilador procesador x1 Conector Ventilador Sistema x2 Distribuidor Panel Frontal x1 Distribuidor Audio Frontal x1 Distribuidor CMOS Directo x1 Distribuidor Ranura Impresora x1 Distribuidor Consumible IR x1 Distribuidor Ranura Serie x1 Conector Externo S/PDIF x1
Factor de Forma	Factor de Forma ATX, 295 mm x 200 mm		
Soporte OS	Windows XP / Vista / 7/ 8 Biostar reserva su derecho de añadir o retirar el soporte para cada OS con o sin notificación.		

2012/12/12